

$D_2^*(2460)^{\pm}$

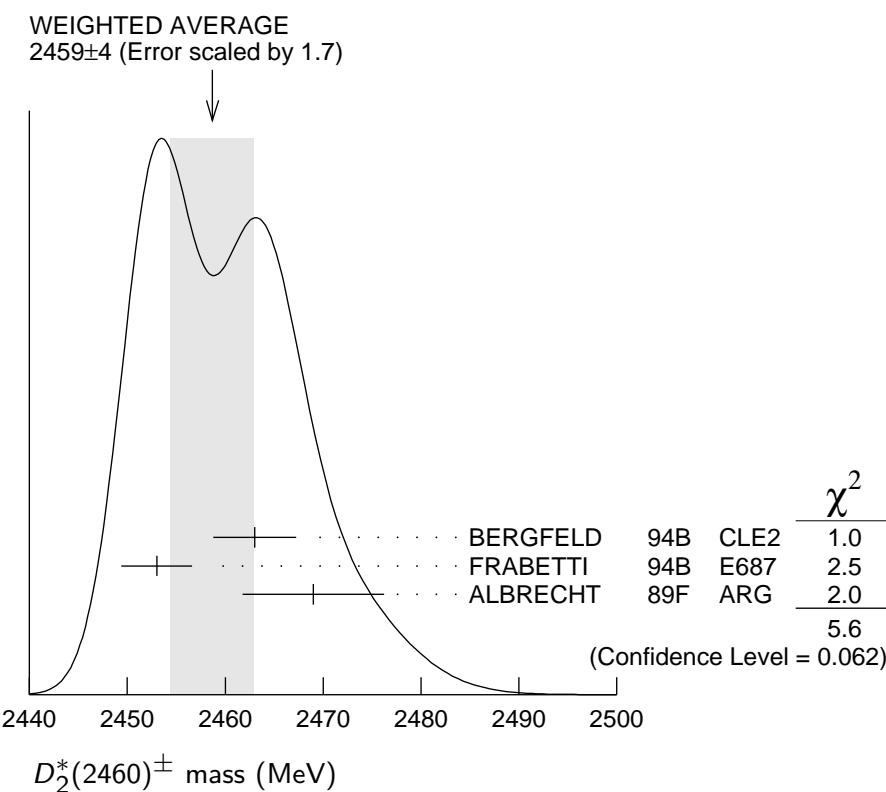
$I(J^P) = \frac{1}{2}(2^+)$

$J^P = 2^+$ assignment strongly favored(ALBRECHT 89B).

$D_2^*(2460)^{\pm}$ MASS

| VALUE (MeV) | EVTS | DOCUMENT ID | TECN | COMMENT |
|---|------|---|----------|-------------------------------------|
| 2459 ±4 OUR AVERAGE | | Error includes scale factor of 1.7. See the ideogram below. | | |
| 2463 ±3 ±3 | 310 | BERGFELD 94B | CLE2 | $e^+ e^- \rightarrow D^0 \pi^+ X$ |
| 2453 ±3 ±2 | 185 | FRABETTI 94B | E687 | $\gamma Be \rightarrow D^0 \pi^+ X$ |
| 2469 ±4 ±6 | | ALBRECHT 89F | ARG | $e^+ e^- \rightarrow D^0 \pi^+ X$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | |
| 2467.6 ±1.5 ±0.8 | 3.5k | 1 LINK | 04A FOCS | γA |

¹ Fit includes the contribution from $D_0^*(2400)^{\pm}$. Not independent of the corresponding mass difference measurement, $(m_{D_2^*(2460)^{\pm}}) - (m_{D_2^*(2460)^0})$.



$m_{D_2^*(2460)^{\pm}} - m_{D_2^*(2460)^0}$

| VALUE (MeV) | DOCUMENT ID | TECN | COMMENT |
|----------------------------|-------------------|-----------------------------------|---------|
| 2.4±1.7 OUR AVERAGE | | | |
| 3.1±1.9±0.9 | LINK 04A FOCS | γA | |
| -2 ±4 ±4 | BERGFELD 94B CLE2 | $e^+ e^- \rightarrow$ hadrons | |
| 0 ±4 | FRABETTI 94B E687 | $\gamma Be \rightarrow D\pi X$ | |
| 14 ±5 ±8 | ALBRECHT 89F ARG | $e^+ e^- \rightarrow D^0 \pi^+ X$ | |

$D_2^*(2460)^{\pm}$ WIDTH

| VALUE (MeV) | EVTS | DOCUMENT ID | TECN | COMMENT |
|--|------|-------------|----------|-----------------------------------|
| 29 ± 5 OUR AVERAGE | | | | |
| 34.1 ± 6.5 ± 4.2 | 3.5k | 2 LINK | 04A FOCS | γ A |
| 27 ± 8 ± 5 | 310 | BERGFELD | 94B CLE2 | $e^+ e^- \rightarrow D^0 \pi^+ X$ |
| 23 ± 9 ± 5 | 185 | FRAEBETTI | 94B E687 | γ Be → $D^0 \pi^+ X$ |
| 2 Fit includes the contribution from $D_0^*(2400)^{\pm}$. | | | | |

$D_2^*(2460)^{\pm}$ DECAY MODES

$D_2^*(2460)^-$ modes are charge conjugates of modes below.

| Mode | Fraction (Γ_i/Γ) |
|-------------------------------|--------------------------------|
| $\Gamma_1 D^0 \pi^+$ | seen |
| $\Gamma_2 D^{*0} \pi^+$ | seen |
| $\Gamma_3 D^+ \pi^+ \pi^-$ | not seen |
| $\Gamma_4 D^{*+} \pi^+ \pi^-$ | not seen |

$D_2^*(2460)^{\pm}$ BRANCHING RATIOS

| $\Gamma(D^0 \pi^+)/\Gamma_{\text{total}}$ | Γ_1/Γ |
|---|--|
| VALUE | DOCUMENT ID TECN COMMENT |
| seen | ALBRECHT 89F ARG $e^+ e^- \rightarrow D^0 \pi^+ X$ |
| $\Gamma(D^0 \pi^+)/\Gamma(D^{*0} \pi^+)$ | Γ_1/Γ_2 |
| VALUE | DOCUMENT ID TECN COMMENT |
| 1.9 ± 1.1 ± 0.3 | BERGFELD 94B CLE2 $e^+ e^- \rightarrow$ hadrons |

$D_2^*(2460)^{\pm}$ REFERENCES

| | | | | |
|-----------|-----|-------------|-----------------------------|---------------------|
| LINK | 04A | PL B586 11 | J.M. Link <i>et al.</i> | (FOCUS Collab.) |
| BERGFELD | 94B | PL B340 194 | T. Bergfeld <i>et al.</i> | (CLEO Collab.) |
| FRAEBETTI | 94B | PRL 72 324 | P.L. Frabetti <i>et al.</i> | (FNAL E687 Collab.) |
| ALBRECHT | 89B | PL B221 422 | H. Albrecht <i>et al.</i> | (ARGUS Collab.) |
| ALBRECHT | 89F | PL B231 208 | H. Albrecht <i>et al.</i> | (ARGUS Collab.) |

OTHER RELATED PAPERS

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| CLOSE | 05C | PR D72 094004 | F.E. Close, E.S. Swanson | (OXFTP) |
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